CLAIMS

1. A method for preparing peptides having selectively protected amines of untargeted sites, comprising synthesizing the peptide by separately blocking branched amines of targeted sites and branched amines of untargeted sites with either ivDde or Mtt, and Boc, and protecting N^{α}–amine with Fmoc or Nsc.

2. The method in Claim 1, further comprising substituting the amine protecting groups for amines of untargeted sites including N^{α} –amine with at least one final amine protecting group selected from the group consisting of Fmoc, Nsc, Dde and ivDde.

3. The method in Claim 1, further comprising substituting the amine protecting group for amines of untargeted sites including N^{α} –amine with Boc.

4. The method in any one of Claims 1 to 3, in which the peptide synthesis is performed by solid phase synthesis.

5. The method in any one of Claims1 to 3, in which the peptide sequence is divided into at least two fragments, the fragments are synthesized separately, and then the fragments are condensed to form the peptide.

6. Peptides having selectively protected amines of untargeted sites prepared by the method in any one of Claims 1 to 5.

7. The peptides in Claim 6, in which said peptide is calcitonin or GRF(1-29).

8. A method for preparing specifically conjugated PEG-peptide in which PEG is specifically conjugated to amines of targeted sites, comprising (1) a step of reacting the peptide in Claim 6 with activated PEG and (2) a step of removing the amine protecting group of the compound obtained in the step (1) under acid-base deblocking condition.

9. The method in Claim 8, further comprising a step of purifying the product of the step (2).

10. The method in Claim 9, in which said purification step comprises separating the product by ionic exchange chromatography, removing salt and then drying.

11. The method in any one of Claims 8 to 10, in which said activated PEG is linear or branched hydroxy- or methoxy- type alkylating or acylating PEG of molecular weight in a range of 1,000 to 40,000.

12. The method in Claim 11, in which said activated PEG is at least one selected from the group consisting of mono-methoxy poly(ethyleneglycol)succinimidyl succinate, mono-methoxy poly(ethyleneglycol)succinimidyl propionate, mono-methoxy poly(ethyleneglycol)succinimidyl carbonate, mono-methoxy poly(ethyleneglycol)

succinimidyl carbamate and mono-methoxy poly(ethyleneglycol) tresylate.